Doing Business with Testforce? Simple!

WE'RE INNOVATIVE:
Global leaders in virtually every industry count on Testforce to provide leading and state-of-the-art products and services to help them work better, smarter, and faster. We maintain a fresh portfolio of leading suppliers and innovative products, giving us a competitive edge to help our customers meet and exceed their goals from design to production.

WE'RE CARING:
Your success is our success. Our team prides itself in building strong relationships with our customers. This helps us to get a better understanding of your goals, operations, and concerns. At the end of the day, we care because we want you to succeed.

Our formula for success K = I x E:
Knowledge is the product of providing timely information backed up by decades of experience. Whether it’s troubleshooting an issue or providing customized presentations and training sessions, our team is pleased to share their expertise.

WE’VE GOT YOUR BACK:
With a fully-equipped calibration and repair facility in Pickering, ON, we offer complete warranty and factory level trained support from start to finish. We have a commitment to excellence in service anytime, anywhere.

Simplifying Complexity: Make Life Simpler with the Help of a Technical Account Manager.

Testforce’s Technical Account Managers (TAM) are your primary strategic resource. Drawing upon their extensive core technical and business skills, a TAM appreciates and understands the importance of your goals and ensures a positive experience when doing business with us.

Technical Account Manager’s Role:
Account Management - Performance resource management understanding your short and long term strategic objectives.
Technical Support - Manage the timely resolution of customers’ technical support requests using appropriate resources and escalation paths where necessary.
Technical Knowledge - The development, preservation, and understanding of current and upcoming Testforce products and services.
Partnering - Formation of successful working relationships between Testforce suppliers and customers.

Get Started: Speak with your Inside Sales Representative

The Inside Sales Representative’s key role is to work as a team with the Technical Account Manager and provide direct support in the ongoing development of solid customer relationships. Integrity, vision, and passion are essential assets of our Inside Sales team.

Visit www.testforce.com today for Product Info, Online Support, Resources, and more!

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AFG3000C Arbi tary Function Generator

With 12 standard waveforms, up to 240 MHz BW, arbitrary waveform capability, and signal impairment options, the AFG3000C Series supports a wide range of applications. Best-in-class 2 GS/s performance ensures signals are accurately reproduced. It is easy to use with a large display and shortcut keys.

RSA306 Spectrum Analyzer

A full-featured spectrum analyzer for less than half the price of a conventional instrument.

- Frequency range 9kHz to 6.2GHz
- 80 MHz real-time Bandwidth
- 100% POI of signals >100us
- Up to 10,000 signal traces/second
- -160dBm to +20dBm dynamic range

PWS2000 DC Power Supply

This series is designed with the performance and intuitive operation you expect from Tektronix. Wide voltage (0-72V) and current (0-6A) ranges, plus 10 mV and 10 mA resolution, satisfy a wide variety of applications. A numeric keypad makes voltage and current selection fast and accurate. Bright displays with large digits provide excellent readability.

DMM4040/4050 Multimeter

With 6.5 digit resolution, these multimeters measure V, Ohm, and current with high accuracy. Bright displays with large digits provide easy reading. Front-panel controls provide fast access to frequently used functions and parameters.

TSG4100A RF Vector Signal Generator

TSG4100A Series RF Vector Signal Generators offer mid-range RF performance and up to 200 MHz modulation bandwidth. Software upgradeable from analog to more advanced vector and digital modulation capabilities. Spurious free outputs with low phase noise and extraordinary frequency resolution make these instruments perfect for any application.

Key Features:
- Analog and vector/digital signal generation capabilities
- Dual baseband ARB generators
- Digital modulation applications for GSM, EDGE, W-CDMA, APECO-25, DECT, NADC, PDC, and TETRA
- Best in class phase noise and spurious free output

PA1000/4000 Power Analyzer

Where Accuracy Meets Versatility

Tektronix Power Analyzers deliver high accuracy, power, energy and efficiency measurements. Single phase power analyzer for power supply testing, energy star compliance, and standby power consumption testing.

Key Features:
- Dual Spiral Shunt™ system for 0.05% basic accuracy
- DC to 1MHz bandwidth
- Up to 600Vrms – 20Arms input
- Colour graphics display including waveforms and harmonics
- USB, Ethernet LAN, and GPIB communication interfaces
- Application based measurement modes and PC software

MDO4000B Mixed Domain Oscilloscope

Transforming the way you test - now supporting 802.11ac

Capture time-correlated analog, digital, and RF signals for a complete system view of your device. The MDO4000 has a Spectrum Analyzer channel from 9kHz to 3 or 6 GHz, 4 analog channel models with 100 MHz, 350 MHz, 500 MHz or 1 GHz, and 16 digital channels with MagniVu™ high speed acquisition that provides 60.6 ps fine timing resolution.

Wave Inspector® controls provide easy navigation of time-correlated data from both the time and frequency domains. Investigate how your RF spectrum changes over time or with device state by moving Spectrum Time through your acquisition. Advanced RF triggers allow you to quickly capture specific RF events.

MSO/DPO5000B

Leading performance and analysis for more advanced design verification

Designing with today’s faster data rates and tighter timing margins requires an oscilloscope with outstanding signal acquisition performance and analysis capabilities. With 2 GHz BW and 10 GS/s sample rate, advanced analysis and math capabilities, the MSO/DPO5000B is the right choice for your bench or lab. Run Windows® based analysis software right on the oscilloscope. MSO models include 16 digital timing channels, and all models can be equipped to decode common serial protocols such as 1C, SPI, USB, Ethernet, CAN, LIN and FlexRay.

Accurate high-speed probing

Most Tektronix scope models come with a set of perfectly matched high performance probes. The user may require a specific probe type or accessory, and Tektronix offers over 100 options.

Visit www.testforce.com today for Product Info, Online Support, Resources, and more!
GPSG-1000 GPS/Galileo Portable Positional Simulato

The GPSG-1000 is a low cost, 6 or 12 channel, WAAS capable satellite simulator that can be used in production, maintenance, or installation testing. It is a test set that creates 3D simulations which are used in applications testing of civil GPS and Galileo receivers and limited testing of military GPS receivers.

Avionics

ALT-8000/ALT-8015 Radio Altimeter Flightline Testers

These test sets provide an easily configurable RF-based altitude simulation to quickly test an installation, or direct connection to the line replaceable unit. A large color-touchscreen displays parametric measurements and allows for detailed profiles to be set up to emulate actual airborne conditions.

Avionics Databus Solutions

IFR 4000 Nav/Comm Tester

The IFR 4000 is a menu driven, compact, lightweight, weatherproof, battery operated unit designed for testing ILS, VOR, Marker Beacon and VHF/UHF communications avionics systems. Accurately measures:
- 121.5/243 MHz emergency beacon transmitter frequency, Headphone audio output to monitor swept tone
- 406 MHz COSPAS/SARSAT emergency beacon transmitter frequency, Decode and display of all location and user protocols
- HF transmitter, frequency, output power, modulation receiver sensitivity

IFR 6000 Ramp Test Set

This avionics ramp test set is designed for testing MODE A/C/S transponder, DME, TCAS I/II, ADS-B and TIS avionics systems.
- Mode S level 1-4, (level automatically determined), FAR Part 43 appendix F
- (including proposed Eurocontrol extension), Eurocontrol Elementary and Enhanced Surveillance
- ICAO Annex 10 amendment 77
- Tests DME 1 MHz spaced X or Y channel. Provides accurate range and velocity simulation, station ident, squitter control

Avionics

Fluke 96270

The Fluke Calibration 27Ghz 96270A RF Reference Source is the simplest, most accurate and cost effective single instrument for calibrating spectrum analyzers and RF power sensors and more. Its precision signal level and attenuation, high signal purity and precision low distortion modulation make this reference source clearly superior to the general-purpose signal generators that are often used to calibrate spectrum analyzers, RF power sensors, attenuators, and similar instruments.

Key Features
- Self-characterization lets you avoid calculating correction factors for each component in the signal delivery system
- Covers a broad range of RF calibration workload
- Reduces the number of instruments and interconnections required for RF calibration
- Integrated 300MHz frequency counter and dual power meter readout
- Calibration-specific interface simplifies technician tasks
- Spectrum analyzer calibration times by as much as 50%

Avionics

Fluke 5730A High Performance Multifunction Calibrator

The new gold standard in electrical calibration

Since 1988, the 5700A family has set the standard for multifunction calibrator performance in calibration laboratories around the world. The NEW 5730A raises the bar in High Performance Multifunction Calibrators.

The 5730A calibrates a wide range of DMMs up to 8.5 digits, as well as RF voltmeters when equipped with the wideband option. The 5730A features improved specifications that will help you increase test uncertainty ratios and increase test confidence. What’s more, the improved specifications will reduce your need to guardband, giving you confidence and peace of mind in your calibrations.

Key Features
- Improved performance specifications for AC voltage, AC current, and resistance
- 6.5 inch VGA capacitive touch screen with full color graphical user interface
- Visual Connection Management™ output terminals guide connections
- Graphical user interface in nine languages
- Compatible with 52120A and 5725A amplifiers
- Full MET/CAL® compatibility with 5700A and 5720A procedures
- Artifac Calibration using 10 V, 1 and 10 kΩ external standards

A40B Current Shunts

PRECISION, LOW INDUCTANCE SHUNTS FOR AC AND DC CURRENT METROLOGY

The A40B AC and DC precision current shunt set consists of 14 low-inductance coaxial current shunts, adapters and connectors, and a rugged transit/storage case. Designed for currents from 1 mA to 100A, the current shunts are for laboratory use in making directly measured absolute AC or DC current measurements as well as AC/DC current transfer measurements.

Key Features
- Outstanding resistance value stability
- Excellent self-heating power coefficient
- Low temperature coefficient
- DC to 100 kHz

6135A/PMUCAL Phasor Measurement Unit Calibration System

FAST, AUTOMATED, TRACEABLE CALIBRATIONS THAT COMPLY WITH IEEE C37.118.1™-2011

The 6135A/PMUCAL is the only fully automated and traceable PMU calibration system available today. It is an ideal solution for PMU designers and manufacturers, as well as national metrology institutes (NMIs). It’s also a perfect solution for third party calibration houses, electrical power utilities, and organizations associated with electrical power transmission.
The E500 is a LTE capacity test system based upon the proven TMS00 Series UE Test Mobile. The E500 hardware is flexible and scalable depending upon the number of UEs and number of cells required. The system offers true end-to-end LTE load testing with real data application traffic.

### Key Features
- Multi-mode and multi-frequency support
- Up to 64 UEs per test system
- Support for all LTE frequencies
- Support for all LTE modes

### Applications
- Network planning and optimization
- LTE capacity planning
- LTE load testing
- LTE performance testing

This system is validated by the standards bodies and is used by leading operators and test labs worldwide.
SG Series

**Sorensen**

**5kW-30kW Modular Programmable DC Power Supply.**

The SG Series represents the next generation of high power programmable DC power supplies. It is designed for exceptional load transient response, low noise and the highest power density in the industry. With 15 kW available from 20-1,000 VDC output in a 3U package the SG leads the industry in power density. The power density is enhanced by a front air intake allowing supplies to be stacked without any clearance between units.

At the heart of the SG series is a 5 kW power module. Depending on the output voltage, one to six modules can be configured in a single chassis to deliver 5 kW to 30 kW of power. Combinations of these chassis can then be easily paralleled to achieve power levels up to 150 kW. Paralleled units operate like one single supply providing total system current.

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PLA Series DC Loads

The PLA Series of air-cooled DC Electronic loads offers the industry’s smallest footprint, the highest power density and current rating, along with the broadest selection of high voltage models. It is capable of being custom-tailored to meet your application requirements.

**INDIVIDUAL FET PROTECTION**

To ensure reliability, Amrel’s design includes individual FET protection. If a load contains many FETs in parallel, it can create a cascading failure if one shorts out. The eLoad design isolates failures so other components will not be affected, increasing the system’s level of protection. With individual FET protection, the MTTR is reduced and the load quickly returns to full operation.

**ULTRA-LOW VOLTAGE OPERATION**

The design allows the programmable electronic load to operate at voltage levels approaching 0.1V. They will typically dissipate full rated current below 1% of their maximum rated voltage.

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XG Series Programmable DC Power Supplies

**Designed for test, production, laboratory, OEM and quality assurance applications, the XG Series provides a wealth of features to ensure accuracy and greater efficiency. It puts clean, reliable power at your disposal and delivers stable, variable output voltage and current for a broad range of development, test and system requirements. There are three models available: 850 W, 1500 W, 1700 W. All models come standard with USB, RS-232, Ethernet-LXI, RS-485, and isolated and non-isolated analog interfaces to provide a comprehensive set.**

- Free selectable analog control range
- Auxiliary DC output channels with control auto start mode
- DC-waveforms through internal sequencing
- Output auto start mode (auto restart)
- Power-saving standby mode

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SFA Series 5 kW - 30 kW High Power High Slew Rate Current Source

High power laser diodes require well-regulated current control to avoid catastrophic damage. Providing constant current control mode only, the SFA’s low stored energy output minimizes damage potential for sensitive devices as well as enabling a current slew rate of up to 400 A/msec.

**KEY FEATURES**

- High power density: up to 15 kW in a 3U; 30 kW in a 6U chassis
- Wide voltage range: 0-40V up to 0-600V, in increments of 5 kW from 5 to 30 kW
- Fast load transient response: protection from undesired voltage excursions
- Low RMSs and P-P noise: suitable for most sensitive applications
- Parallel SFA’s up to 150 kW: expandable as your requirement grows
- Modular design: upgradeable for the ultimate in investment protection

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**CSW Series**

**AC/DC Power Sources**

**MX Series High Power Source Up To 135kVA**

Offers transient and arbitrary waveform generation, standard measurements, harmonic analysis and waveform acquisition. Bidirectional “Green” Power Solution Automatic crossover between source and sink power modes offers 100% regenerative capabilities in AC mode.

**Key Features**

- Power output: 5550 VA
- Combination AC/DC power source
- 40 Hz-5 kHz output frequencies
- Arbitrary and harmonic waveform generation
- Built-in digital power analyzer
- Scope capture capability
- Power programmable software
- Constant power mode

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**TerraSAS**

**Programmable Solar Array Simulator**

For microgrids, energy storage, and inverter test applications, this series of photovoltaic (PV) simulators is designed to emulate the behavior of a terrestrial PV solar array. They offer low output capacitance and high closed loop bandwidth to keep up with the Maximum Power Point Tracking (MPPT) algorithms used in grid-tied inverters.

**Key Features**

- Full turn-key solution
- Simulate dynamic irradiance and temperature ranging from a clear day to cloud cover conditions
- Read-back of voltage, current, irradiance level and temperature setting
- Provides programmable I-V curves for PV Inverter testing
- Simulates different types of solar cell material Multi-Channel, Up to 1MW

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**Ametek Programmable Power Solutions**

When power requirements go beyond the catalog, Ametek works directly with customers to develop application-specific power solutions through modified standard products, integrated power systems using standard products, or fully customized solutions. Ametek has performed hundreds of cost-effective, value-added power integration solutions across dozens of market segments worldwide, spanning:

- Solar array power simulation
- Product burn-in systems
- Custom multi-channel power supplies
- And many more!

**Why spend the time, money and resources trying to solve your custom power conversion challenges on your own when you can let AMETEK PPS handle it for you.**

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SMC100A Signal Generator

The SMC100A sets standards for attractively-priced analog signal generators. It has the smallest size and the best price/performance ratio in its class. The flexible and versatile instrument is suited for use in service and maintenance labs. Due to its small dimensions and lightweight design, the R&S SMC100A is also the perfect choice for field applications or training and education environments.

**Key Features**
- Frequency range 9 kHz to 1.1 GHz
- Internal tracking generator and VSWR bridge with up to 12 dBm output
- Optional high-stability reference oscillator
- Maximum output level of typ. > +17 dBm
- High sensitivity < –141 dBm (1 Hz), with preamplifier
- Measurement functions for all important tasks
- Wear-free electronic attenuator
- Up to 80 kHz bandwidth and 200 kHz sampling
- Low measurement uncertainty (< 1 dB)
- Integrated overvoltage protection
- Parallel measurements on up to eight channels
- 20 MHz demodulation bandwidth for analyzing LTE

ZND Vector Network Analyzer

The R&S ZND is a cost effective network analyzer that provides unidirectional measurements up to 4.5 GHz. Options are available to perform bidirectional measurements and to extend the frequency range to 8.5 GHz.

**Key Features**
- Frequency range 100KHz to 4.5GHz/8.5GHz
- Touchscreen operation
- Dynamic range up to 120dB
- Bandwidths from 1Hz to 300KHz
- Upgrade to full bidirectional measurements
- Time domain analysis for cable and filter measurements
- Built-in DC voltage supply (bias)
- Three-path diode power sensors
- Frequency range 9kHz to 3.6/8/13.6/20 GHz

ROHDE & SCHWARZ

For 80 years, Rohde & Schwarz has stood for quality, precision and innovation in all fields of wireless communications. The company is strategically based on four pillars: test and measurement, broadcasting, secure communications, radiomonitoring and radiolocation. Thanks to this strategy the company can address diverse market segments, including wireless communications, the broadcasting and electronics industry, aerospace and defense, homeland security and critical infrastructures.

FSH Spectrum Analyzer

**Key Features**
- Frequency range: 9kHz to 3.6/8/13.6/20 GHz
- High sensitivity < –161 dBm (1 Hz)
- 20MHz modulation bandwidth for analyzing LTE signals
- Low measurement uncertainty (< 1 dB)
- Measurement functions for all important tasks related to the startup and maintenance of transmitter systems
- Internal tracking generator and VSWR bridge with built-in DC voltage supply (bias)
- Two-port network analyzer

UPP Audio Analyzer

High measurement speed, parallel signal processing in multichannel applications, and high reliability in continuous operation are vital requirements to be met by audio analyzers for use in production.

**Key Features**
- Suitable for all interfaces: analog, digital, and combined
- Parallel measurements on up to eight channels
- Up to 80 kHz bandwidth and 200 kHz sampling rate

HMP Series Programmable Power Supply

The HMP Series is available in 2, 3 and 4 channels with a total operating performance of 188 or 384 watt. The measured output voltage and current as well as the resulting output power are displayed in real time.

**Key Features**
- 4 Ch 0 V-32 V 0 A-10 A (384 W)
- Lowresidual ripple due to linearpower regulators
- High setting and readback resolution: 1 mV and 0.1/0.2/1.0 A
- Fuse Link (electronic fuse) freely combinable for all channels
- Fuse Delaytunable up to 250 ms
- EasyArb function directly programmable on device
**dbGuard Series RF Shielding Test Enclosures**

The dbGuard Series allows you to conduct high quality RF level testing while maximizing your test equipment investment. These advanced RF shielding test enclosures provide the performance and durability you require. The dbGuard’s IASG technology, 100 dB isolation, spacious interior, RF absorptive coating, interchangeable test cartridges, and custom 1/0 panel provides the versatility necessary for all departments and applications. Whether in manufacturing, R&D, engineering, or service, the dbGuard Series comes in a variety of sizes to suit. And, if we don’t have a size to fit –we’ll customize the shape and height for you.

**FixTreme Series**

Thermal design margins in next generation devices and systems require precision thermal characterization to maximize performance at temperature. The FixTreme is a high performance thermal test enclosure suitable for full functional test. The MTBF value drops by half its value for every 10 °C rise in ambient temperature around the DUT.

**Key Features**

- Available in Forced Air or Thermoelectric versions
- Fully customizable high performance interface
- Temperature ranges of –10°C to +300°C
- Double walled aluminum construction with RoHS compliant finish
- Silco-Soft™ high temperature insulation
- Performance tuned airflow manifold
- Excellent thermal uniformity
- Interchangeable test cartridges for PCB or module level testing

**FixSure Series**

Customizable for any application, including a variety of interfaces (Genrad, VPC, discrete connectors), the FixSure Series brings a modern approach to functional testing.

With a small footprint, these portable fixtures are ideal for functional testing, interfacing to an ATE system, burn-in, or as standalone functional testers.

The FixSure Series can be manufactured with multiple wells as well as top and bottom side probing to increase production throughput and test coverage.

- Board and Module level designs
- Single or Multiple stage design
- Multi UUT fixtures
- Portable small footprint designs
- Mass interconnect interfaces
- Ideal for functional testing, interfacing to ATE system, burn-in, or standalone

**dbCoupler Series**

These RF Broadband Antennas offer repeatable coupling values covering a wide range of frequencies from 300 MHz up to 8 GHz. This makes them an ideal choice for many applications, including: Security, GNSS, Bluetooth, LTE, WiMAX, WiFi, 2G/3G, and RFID (UHF, SHF) devices.

- **db Coupler**
  - Frequency Range: 300MHz to 9GHz
  - Excellent VSWR < 1.9
  - Quick disconnect connector
  - Low profile integrates into dbGuard Series base plate

- **db MIMO Couplers**
  - Frequency range 700MHz to 6GHz
  - 2, 3, and 4 port MIMO versions
  - Proven solution for shield box radiated testing

- **dbCoupler FlexPCB**
  - Frequency Range: 700MHz to 6GHz
  - Flexible small footprint

**dbSafe Series RF Shielding Test Chamber**

The dbSafe Series provides the ideal performance, durability, and ease of use you require. In R&D, engineering, or service its configurability is unmatched. Choose from a wide selection of bases, covers, hinged opening options to suit any application. The dbSafe features a spacious interior well suited for testing large objects or multiple devices at once. Internally mounted antennas allow for real world testing.

**Key Features**

- Frequency 300MHz - 13GHz
- Up to 100 dB isolation
- Compatible with all testers and antenna couplers
- Modular design
- Field upgradeable
- Robust & easy to use
- Excellent repeatability
- Interchangeable RF absorptive foam liner
- User defined I/O connector interface plate
- Single and double wall models

**RF Detective Remote Spectrum Monitoring System**

The RF Detective combines the latest real time spectrum analysis technology with a flexible, high performance multi-channel platform to provide the most comprehensive remote monitoring solution. The RF Detective provides 24/7 accessibility for up to 72 channels of spectrum analysis.

**Key Features**

- Real-time 9kHz to 6.2GHz spectrum analysis coverage
- Up to 24 channels supported per chassis
- Remote Switch Module provides additional RF control over distributed RF systems
- Remote access hardware from any browser
- 100% Probability of Intercept of signals <100us

**ATE Systems**

Test & Measurement and ATE Systems are our business. This is where we integrate our knowledge to eliminate the risk of buying and building your own system. As Measurement Experts we can:

- **Build to Print ATE Systems**
  - Be confident knowing that your system is being assembled in an ISO 9001:2008 facility and that all the production operators are fully trained IPC technicians.

- **Design/Build ATE Systems**
  - Testforce can assist in evaluating things such as the feasibility of generic testers, mass interconnects or creation of high power distribution systems. Our systems are designed to be fully compliant with CSA-SPE 1000.

- **Complete Turnkey Systems**
  - It’s never too early to involve Testforce’s engineering staff in your design. We can help write test specifications, select instruments, write software, and design and document the test system from the ground up.
Carrying the widest selection of RF Power Amplifiers

EMI/EMC

NSG 4070 EMC Test System

The NSG 4070 is a multifunctional EMC immunity test system. Its large frequency range from 9 kHz to 1 GHz and its modular set-up using internal or external amplifiers enable a large variety of applications including tests according to IEC 61000-4-6, various BCI applications as well as signal generator and powermeter for test systems as per IEC 61000-4-20, IEC 61000-4-6, IEC 61000-4-21 and many other applications.

EM Test DPA 503N Power Analyzer for Harmonics and Flicker

The DPA 503N is a fully compliant power analyzer for harmonics and flicker as per the latest IEC/EN 61000-3-3 and IEC 61000-3-2 as well as IEC/EN 61000-3-11 and IEC/EN 61000-3-12:2011 requirements.

NSG 438 ESD Simulator

The NSG 438 ESD simulator is ergonomically designed, with operating conditions constantly displayed and accessible on a bright, clear, color touch display. The NSG 438 comprehensively fulfills virtually all international standard requirements.

Key Facts
- Air- and contact-discharge to 30 kV
- Battery tested to 30,000 discharges at 30 kV
- Advanced voltage-hold feature
- Activity log
- Built-in ISO self-calibration procedure
- Over 60 interchangeable discharge networks

NSG 3040 Multifunction Generator Systems

Teseq’s new NSG 3040 multifunction generator simulates electromagnetic interference effects for immunity testing in conformity with international, national, and manufacturers’ standards including the latest IEC/EN standards. It is designed to fulfill conducted EMC test requirements for CE mark testing, including Combination Wave Surge (4.4 kV), Electrical Fast Transient (EFT) pulses (4.8 kV), and Power Quality Testing (PQT). Expansion capabilities enable the system to be configured for a much broader range of applications.

Key Facts
- Wide-range voltage input up to 530Vrms
- 16 Bit A/D with Real-time data acquisition
- 6 independent input channels; 3 for voltage and 3 for current
- Wide-range current input up to 140A rms
- 6 independent input channels; 3 for voltage and 3 for current
- Wide-range voltage input up to 530Vrms
- USB interface for control and data transfer

Automotive Transient Immunity Tester

The compact and modular NSG 5500 offers the generators necessary for tests with capacitive discharge pulsed interference as called for by ISO, SAE, DIN and JASO, and others. The established test specifications for passenger cars together with the new standards for commercial vehicles published by these international and other bodies are fully covered, as are the most company-specific standards from vehicle manufacturers.

HDPQ Family: Power Quality and Energy Monitoring Analyzers

The Dranetz HDPQ benefits from Enhanced Safety & Productivity through Communications, Software and Robust Design.

Key Features
- Revolutionary remote control capabilities using Ethernet, Wi-Fi, Bluetooth, or USB
- High definition power quality and energy monitoring, 1000 Vrms, AC/DC, 512 samples/cycle
- High speed digitized transients down to 1us and up to 2000 Vpk
- Eight channels, 4 voltage and 4 current
- Advanced power quality – IEC 61000-4-30 Class A and IEEE 1159 compliant

TeraVM Network Test Solution

TeraVM offers the industry’s only virtualized all-in-one solution for testing application-aware infrastructure and devices. It is a virtualized test solution that generates authentic application traffic to simulate real user behavior for validating the security, performance, and scalability of network infrastructure and devices, whether physical or virtual. It can be used to replicate end users generating mail, streaming video, accessing websites, generating proprietary applications as well as generating attacks, DDoS, worms, to validate security scenarios. TeraVM’s uniqueness relies on its per-flow representation of individual subscribers and devices connecting to the network running real application traffic. TeraVM is packaged as a virtual machine which is easily deployed on any industry-standard hardware and only requires a software license to operate.

Introductions

The Spirent GSS9000 Multi-Frequency, Multi-GNSS RF Constellation Simulator sets a new standard of excellence in GNSS RF simulation for R&D and performance test. The GSS9000 produces a comprehensive range of emulated multi-GNSS, multi-frequency RF signals with ultimate class-leading flexibility, coherence, fidelity, performance, accuracy and reliability.

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S2 Series Multi-core Dual Sided Flying Probe Tester

Cut the cost of test with the fastest Flying Probes ever. The S2 features models from NPI to high volumes.
- Fastest probe speed with XYZ Linear Motors
- Highest measurement accuracy
- Unmatched probing flexibility with Multi-Jig technology
- Automated application development
- Widest Test Capabilities including LED, 3D Laser, Hi-res AOI, 4xOBP

For geographically dispersed test organizations, moving a test bed across the world is as simple as checking out a license from a centrally deployed license server.

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**General Purpose**

**Kepco KLN Series**
Low-profile, automatic crossover, high-performance, low-cost, and stable programmable DC power supplies.
- 750 W, 1500 W, 3000 W models
- 39 models from 0-600 V up to 400 A
- CC-CV with automatic crossover
- Switch mode topology for efficient operation
- Remote control for low noise operation
- Remote programming with RS 485, isolated analog, LAN, and GPIB

**BOP Series Bipolar Supplies**
The BOP supplies are true 4-quadrant programmable voltage and current power supplies. This means that they are capable of both sourcing and sinking power. These bipolar power supplies pass smoothly through zero to provide 1 voltage and 1 current. The BOP High Power Supplies use switch mode technology for low dissipation. To maintain low dissipation while sinking power from a non-linear load, the BOP High Power Supplies recover the energy for general reuse.

**LV5490 4K Waveform Monitor**
The LV5490 is a waveform monitor supporting 4K video format. It can display up to four channels of 3G-SDI input signals simultaneously. Eight channels of inputs are available, four are dedicated input connectors with cable length measurement capability, the other four channels are configurable as inputs or outputs with pattern generator functions. The built-in 9-inch LCD monitor is Full HD (1920 x 1080) with wide viewing angle and high color reproduction.

**EX-1200 Series Modular Subsystem**
The EX1200 product family is a modular and scalable series of multi function switch/measure units that can be configured to address a variety of applications. Mix and match a variety of modules to build a comprehensive signal switching and I/O subsystem that performs data logging, level detection, and control.

**Model 2450 Advanced Touchscreen SourceMeter SMU Instrument**
The 2450's innovative GUI and advanced capacitive touchscreen technology allows engineers and scientists to learn faster, work smarter, and invent easier. As a versatile instrument, the 2450 SMU is particularly well-suited for characterizing modern scaled semiconductors, nano-scale devices and materials, organic semiconductors, printed electronics, and other small-geometry and low-power devices.

**300X Series**
**Key Features:**
- 1 kVA Power Rating
- Max Current: 9.2 A @ 110 V, 4.6 A @ 220 V
- US/B/RS-232 Standard

**Slaughter 1300 HiPot Tester**
The 1300 Series AC Hipot testers are designed for tough manufacturing environments. With a simple feature set and the most intuitive user interface on the market, the 1300 Series improves productivity and ensures safe, reliable testing.

**OMNIA II 7-in-1 Electrical Safety Compliance Analyzer**
A wide variety of models, available with 5 kV AC/DC Hipot, 40 A ground bond, functional Run & Line Leakage Tester, and built-in AC power source with 500 VA output, for a line of analyzers as unique as your application.

**Signature Easy Touch Cable Tester**
- Test point range: 128-1024
- Low voltage test: 0-5 V DC max
- Noise rejection range: 0.1-100 KΩ
- 4-Wire resistance range: 0.001 to 10.0 ±2% ±0.001
- Testable components: resistors, diodes, capacitors, twisted pairs
- Onboard memory capacity: unlimited
- Usable adapter sizes: all
- Networking: utilizes standard easy-wire networking software (optional)

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5048 Vector Network Analyzers

5048 is the much-awaited follow up to the 1.3 GHz TR1300/1 VNA. It also runs on an external PC, but now has a greater frequency range and greater accuracy. It is easily transported between work stations and offers a great value solution for magnitude and phase measurements up to 4.8 GHz. This VNA comes in two configurations, 5048 and TR53048. The difference between these configurations is the number of S-parameters that can be measured, based on the number of signal sources and receivers.

C1220 20GHz 2 Port VNA

The first VNA in the CMT Cobalt series line of elite performance USB-driven vector network analyzers. The Cobalt series will expand to feature analyzers and vector network analyzers. The Cobalt line of elite performance USB-driven analyzers provides the user with critical parameters needed for production. This series delivers great versatility with a temperature range of -10°C to +85°C with 1°C and a rate of change of 1°C/s.

Planar R140 Vector Reflectometer

Power and operated via USB connection to an external PC, R140 performs lab quality measurements for magnitude and phase from 85 MHz to 14 GHz. Its portable size allows operation in any environment without the use of test cables, resulting in highly dependable performance and calibration stability. R140 is a high performance solution for cable and antenna testing in the lab or field.

Analytical Probe Systems

The most advanced micro-probing solutions at affordable prices. Applications include: Device Characterization and Modeling, RF/Microwave, Wafer Level Reliability, Failure Analysis, IC Engineering, and High Power. High performance economical solutions available for education environments.

Cobalt 1220 20GHz 2 Port VNA

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Maury MT Series Automated Tuners

The MT97x and MT98x Series automated load pull tuners are precision instruments optimized for a broad class of in-fixture and off-wafer applications. Suitable for automated or manual applications requiring the ability to match the impedances at a terminal interface. Maury automated tuners offer a tuning resolution in excess of a million impedance points and accuracy better than -50 dB over the entire Smith chart.

The tuner design is based on a slide screw concept using the inherently broadband slab-line transmission structure. Each unit has two non-contacting probes delivering high VSWR with superb accuracy and reliability over a wide frequency range. These probes can be fully retracted, leaving a low-loss, well matched transmission line, which is a significant benefit in power related applications where two-port tuners capable of handling large amounts of power are required. Maury Microwave automated impedance tuners are ideal for load pull, harmonic load pull, active load pull, noise figure, noise parameters, and all automated tuner applications.

2600B Series SourceMeter® SMU

The industry’s most powerful, fastest, and highest resolution SMU instruments are no wiser than ever to use. The Model-6482 adds higher measurement resolution, a second measurement channel, and dual, independent 30 V voltage bias sources.

Analytical Probes System

The most advanced micro-probing solutions at affordable prices. Applications include: Device Characterization and Modeling, RF/Microwave, Wafer Level Reliability, Failure Analysis, IC Engineering, and High Power. High performance economical solutions available for education environments.

Key Features
- 50/150/200/300 mm chuck sizes
- Systems can be configured for DC, RF, microwave or mmW
- Thermal chuck options from -60°C to 300°C
- Available DMI Shielded dark box option for low noise DC Measurements
- Wide range of positions to meet all applications and budgets
- High performance choices available for Optics and camera requirements
- Free of charge Qalibria – RF Calibration Software

ATS-Series THERMOSTREAM® Systems

Used in a variety of temperature testing and conditioning applications. Spanning Tempronic’s traditional applications in semiconductor testing, failure analysis, and device characterization to their broader use in PCB and electronic sub-assembly testing, this series delivers great versatility with a temperature range of -100°C to +300°C with 1°C and a rate of change of 1°C/s.

4200-SCS Parametric Analyzer

A modular, fully integrated parameter analyzer that performs electrical characterization of materials, semiconductor devices and processes. From basic I-V and C-V measurement sweeps to advanced ultra-fast pulsed I-V, waveform capture, and transient I-V measurements, the 4200-SCS provides the user with critical parameters needed for production.

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6482 Dual-Channel Picocomparator/ Voltage Source

This Pico comparator/Voltage Source provides two independent picocomparator/voltage source channels for a wide range of low-level measurement applications that require dual-channel measurements. Compared to Keithley’s 6485, the Model-6482 adds higher measurement resolution, a second measurement channel, and dual, independent 30 V voltage bias sources.

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Testforce Calibration & Repair Services

We are committed to providing unmatched warranty support for all our products. That’s why we can assist our customers with fast and reliable calibration and repair service when they need it most.

Our calibration lab is equipped with an array of industry-leading instruments and software allowing us to meet and exceed our manufacturer’s traceability specifications. Upon completion, equipment is returned fully serviceable with detailed documentation. Along with being ISO 9001:2008 certified, our calibration lab is also registered with the Controlled Goods Program in accordance with the Defense Protection Act and ITAR compliant.

FT437 Series II 400Hz Power Quality and Energy Analyzer

Specially designed for transport applications

Designed for capturing power quality measurements, the Fluke 437 Series II is the must-have 400 Hz quality analyzer for those working in ships, submarines, aircraft, spacecraft, and other military vehicles.

PNC High Voltage Heinzinger Power Supplies

The Heinzinger high precision, high voltage PNC power supply product line offers precisely controlled DC voltage at minimum ripple and best long-term stability, using multiple technologies to achieve highest performance.

Key Features
- High voltage systems 600V to 300kV output voltage
- High Current output solutions to 10,000 mA
- High Stability low noise designs
- Bipolar and polarity reversal solutions as option
- Semi-Custom turnkey solutions

Fluke Ti400 Infrared Camera

Powerful high-performance features make troubleshooting fast and easy

- Detect and communicate issues with Fluke IR-Fusion® with AutoBlend™ Faster communication with wireless image transfer
- Capture 5 additional measurements with the CNX™ Wireless System
- One-handed, easy-to-use user interface
- Rugged 640x480 capacitive touch screen

Testforce offers a range of services and training options to help you maximize your investment and become successful and productive MET/TEAM users.

- MET/TEAM on-site assistance and training
- MET/TEAM classroom training
- MET/TEAM® data migration from MET/BASE
- MET/TEAM data migration from other databases
- MET/TEAM self-validation
- Other software services

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Precision, Programmable Power Supplies & Loads

Cost-effective AC Power Sources

Electrical Safety Testing Instrumentation

Board-Level Testability Analysis Tools

RF Power Instrumentation

AC/DC Programmable Power Supplies

Advanced Electronics, Aviation, & Communications Solutions

Cable & Harness Test Instrumentation

Vector Network Analyzers & Reflectometers

Avionics Sensor Data Analysis Solutions

Energy & Power Quality Monitoring Tools

Photovoltaic & Smart Grid Test Simulators

Full-Compliant EMC Test Instrumentation

Precision Calibration Instrumentation

Low Level Precision Instrumentation

DC Power Instrumentation

Programmable Filters, Wideband Amplifiers & Distortion Analyzers

HD-SDI Broadcast & Video Instrumentation

Fiber Optic Component Characterization

Microwave & RF Characterization Solutions & Precision VNA Calibration

Advanced Probing Solutions from DC to 110GHz

AC/DC Electronic Loads & Battery Test Systems

AWGN Sources & Instrumentation

HD-SDI Broadcast & Video Instrumentation

HD Video Generators & Analyzers

Vector Network Analyzers, Spectrum Analyzers, & Signal Generators

Electrical Safety Testing Instrumentation

Benchtop Modular & Rack-Mounted DC Power Supplies

Flying Probe Testers

Multi-GNSS Simulators & Emulators

Instruments for Analyzing Mixed Signal Designs

Portable Air Stream Temperature Forcing Systems

EMC/EMI Immunity & Emissions Instrumentation

Signal Switching Systems & Data Acquisition Systems

Computed X-Ray & Tomography Systems

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